



Inspection Report: Kensington Gold Mine

Tongass National Forest, Minerals Group
8510 Mendenhall Loop Road
Juneau, Alaska 99801
(907) 789-6276 – office
(907) 586-8808 – fax

Date of Inspection: Thursday, May 30, 2013
Date of Report: Wednesday, June 05, 2013
USDA Forest Service Inspector: David Schmerge

Ranger District: Juneau Ranger District
Weather Conditions: Cloudy. Temperature in the 50s.

Exploration in accordance with operating plan	Not Checked
Timber removal following timber sale contract	Not Applicable
BMPs for erosion control	Satisfactory
Water Quality BMPs	Satisfactory
Public safety and fire	Satisfactory
Reclamation work adequate and timely	Satisfactory
Roads maintenance adequate and current	Satisfactory
Tails placement in accordance with plan	Satisfactory
Waste Rock placement in compliance	Satisfactory
Company supervision of operation	Satisfactory
Operating in a clean and orderly manner	Satisfactory

Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written letter to the operator, outlining the necessary work.

NEW REMARKS AND SUGGESTIONS

Kevin Eppers (Environmental Manager, Coeur Alaska) accompanied Kenwyn George (P.E. Engineer, ADEC) and David Schmerge (Hydrologist, U.S. Forest Service) on this inspection. The primary purpose of the trip was to inspect acid rock drainage at the north end of Lower Slate Lake that was reported by Coeur on May 22. The tour also included a visit to the Comet waste rock pile, Ophir Creek, and the Comet Water Treatment Plant.

LOWER SLATE LAKE

Acid rock drainage (ARD) is occurring at the north end of Lower Slate Lake (photos 1 and 2). I sampled the site at multiple points with pH test strips, and the pH was usually 4 or 5, with one point as low as 2. Coeur collected water samples and sent them to the lab for analysis. The ARD is coming from rock that was excavated during the phase 2 construction of the dam last summer. There are two types of rock that were excavated: graphitic phyllite and chloritic phyllite. The graphitic phyllite has acid generating potential and the chloritic phyllite does not. Most of the graphitic phyllite was moved to the north mud dump and placed in a temporary containment cell, and the chloritic phyllite was stockpiled at the north end of Lower Slate Lake. It is hypothesized that some of the graphitic phyllite was mistakenly placed into the stockpile at the north end of the lake instead of the containment cell. Coeur has dug several holes into the stockpile (photo 3), and sent samples to the lab for analysis to determine the quantity of graphitic phyllite that may be there. A preliminary estimate is that 11,000 to 17,000 tons of rock may need to be removed in





order to clean up the site.

COMET WASTE ROCK PILE

A double berm has been created to prevent further dumping of mine sediment into Ophir Creek (photo 4). A spring was observed near the portal, and water was running across the waste rock pile and down the road (photo 5).

OPHIR CREEK

The silt fence was moved so that Ophir Creek is no longer running over it (photo 6). No significant accumulation of mine sediment was observed. There is an old silt fence nearby that is nearly buried by waste rock that has rolled down the pile and onto the Ophir Creek floodplain (photo 7).

COMET WATER TREATMENT PLANT

A tear in the liner of pond 2 was recently repaired. The tear was located directly below the influent pipe, and it is assumed that the tear was from stress due to the sediment and water loading. The pond was drained and the sediment was removed in order to repair the tear. A piece of flexible pipe was fitted on the influent pipe to eliminate direct impact onto the liner from the incoming water and sediments (photo 8). We walked the perimeter of ponds 1 and 2 to see if there was any visible seepage due to the recent liner tear. None was found, but there was debris such as a bucket and foam from silt curtain floats in the wetlands and shrubs at the base of the berms.

ACTION ITEMS

1. As soon as possible, submit to the Forest Service and ADEC the lab results of the water quality samples and the rock samples taken from the north end of Lower Slate Lake.
2. Submit to the Forest Service and ADEC a plan to mitigate the ARD at Lower Slate Lake.
3. The spring at the Comet portal should be diverted away from the waste rock pile.
4. The waste rock in the Ophir Creek floodplain should be removed and the silt fence that has been nearly buried should be re-established.
5. The debris at the base of the berms of ponds 1 and 2 should be cleaned up.





Photo 1. Acid Rock Drainage was recently discovered at the north end of Lower Slate Lake.



Photo 2. The pH of this seep was about 4.



Photo 3. Several holes like this one have been dug to determine the amount of graphitic phyllite that is at the site.



Photo 4. A double berm has been constructed on the top of the waste rock pile to prevent the dumping of material into Ophir Creek.



Photo 5. Water from a spring near the mine portal is running across the waste rock pile and down the road.



Photo 6. Ophir Creek is no longer running through the silt fence.



Photo 7. Waste rock has rolled down the pile and onto the Ophir Creek floodplain. This old silt fence is nearly buried.



Photo 8. Flexible pipe has been fitted onto the influent pipe of pond 2 to prevent tears in the liner caused by inflowing mine water and sediment.

U.S. Forest Service Officer: /s/ David Schmerge